Medical
Wake
Copy 2

CONTENTS OF VOLUME 127

No. 1, January, 1939

PAGE

Wyman, Jeffries, Jr. An analysis of the titration data of oxyhemoglobin of the horse by a thermal method 1

Kelsey, F. E. Determination of cholesterol 15

Oleson, J. J., Bird, H. R., Elvehjem, C. A., and Hart, E. B. Additional nutritional factors required by the rat 23

Hunt, Madison, and du Vigneaud, Vincent. The synthesis of the next higher and lower homologues of *l*-carnosine: γ-aminobutyryl-*l*-histidine and glycyl-*l*-histidine 43

Levene, P. A., and Kuna, Martin. Partially O-methylated hexitols. I. 1,2,3,5,6-O-pentamethyl-*d*-sorbitol 49

Kelley, Edward G. Reactions of dyes with cell substances. IV. Quantitative comparison of tissue nuclei and extracted nucleoproteins 55

Kelley, Edward G. Reactions of dyes with cell substances. V. Differential basic dye combination of tissue nuclei with special reference to resting and mitotic cells of tumor tissue. Plates 1 to 3 73

Beach, Eliot F., and White, Abraham. Synthesis of cystine by the albino rat 87

Jen, Pong C., and Lewis, Howard B. The metabolism of sulfur. XXVI. The metabolism of the betaine of cystine 97

Tipson, R. Stuart, and Levene, P. A. On the union of the nucleotides in ribonucleic acid 105

Baumann, Emil J., and Metzger, Nannette. Iodine in pituitary and some other tissues 111

Looney, Joseph M., and Walsh, Anna I. The determination of spinal fluid protein with the photoelectric colorimeter 117

Altschul, A. M., Sidwell, A. E., Jr., and Hogness, T. R. Note on the preparation and properties of hemoglobin 123

Stekol, Jakob A. Studies on the mercapturic acid synthesis in animals. X. Glutathione in relation to growth of rats on a low casein diet which contained bromobenzene and naphthalene 131

Wright, Norman. The infra-red absorption spectra of amino acids .. 137

Barron, E. S. Guzman, and Lyman, Carl M. Studies on biological oxidations. XI. The metabolism of pyruvic acid by animal tissues and bacteria 143

Ross, William F. The phyllochromogen of protoporphyrin and pyridine 163

Ross, William F. The heme-globin linkage of hemoglobin. I. The course of the pancreatic digestion of oxyhemoglobin and of carboxyhemoglobin 169

Ross, William F. The heme-globin linkage of hemoglobin. II. The molecular weight of the product from carboxyhemoglobin..... 179
Strain, Harold H. Carotene. XI. Isolation and detection of α-carotene, and the carotenes of carrot roots and of butter..... 191
Wiese, A. C., and Johnson, B. Connor. A new method for the microdetermination of manganese in biological materials..... 203
Perlman, I., and Chaikoff, I. L. Radioactive phosphorus as an indicator of phospholipid metabolism. V. On the mechanism of the action of choline upon the liver of the fat-fed rat..... 211
Menzel, Arthur E. O., and Heidelberger, Michael. Specific and non-specific cell polysaccharides of a bovine strain of tubercle bacillus..... 221
Levene, P. A., and Rothen, Alexandre. Walden inversion. XXI. The halogenation of aromatic carbinols. Rotatory dispersion of aromatic carbinols and corresponding bromides..... 237
Schmidt, Gerhard, Pickels, E. G., and Levene, P. A. Enzymatic dephosphorylation of desoxyribonucleic acids of various degrees of polymerization. Plate 4..... 251
Dunn, Max S., and Porush, Irving. Quantitative investigations of amino acids and peptides. V. The function of iodine in amino nitrogen analyses by the nitrous acid method..... 261
Todd, W. R., Vreeland, Johanna, Myers, Jane, and West, Edward S. A rapid micromethod for the quantitative estimation of sugar alcohols..... 269
Todd, W. R., Myers, Jane, and West, Edward S. On the metabolism of sorbitol and mannitol..... 275
Schoenheimer, Rudolf, and Rittenberg, D. Studies in protein metabolism. I. General considerations in the application of isotopes to the study of protein metabolism. The normal abundance of nitrogen isotopes in amino acids..... 285
Rittenberg, D., Keston, Albert S., Rosebury, F., and Schoenheimer, Rudolf. Studies in protein metabolism. II. The determination of nitrogen isotopes in organic compounds..... 291
Schoenheimer, Rudolf, and Ratner, S. Studies in protein metabolism. III. Synthesis of amino acids containing isotopic nitrogen 301
Keston, Albert S., Rittenberg, D., and Schoenheimer, Rudolf. Studies in protein metabolism. IV. The stability of nitrogen in organic compounds..... 315
Foster, G. L., Schoenheimer, Rudolf, and Rittenberg, D. Studies in protein metabolism. V. The utilization of ammonia for amino acid and creatine formation in animals..... 319
Rittenberg, D., and Schoenheimer, Rudolf. Studies in protein metabolism. VI. Hippuric acid formation studied with the aid of the nitrogen isotope..... 329
Schoenheimer, Rudolf, Ratner, S., and Rittenberg, D. Studies in protein metabolism. VII. The metabolism of tyrosine..... 333

No. 2, February, 1939

Truhlar, Joseph, Drekter, Leon, McGuire, Grace, and Falk, K. George. Studies on enzyme action. LI. The phosphatase actions of tissues of normal and rachitic rats 345
Bernheim, Frederick, and Bernheim, Mary L. C. The action of vanadium on the oxidation of phospholipids by certain tissues 353
Jacobs, Walter A., and Craig, Lyman C. Delphinine 361
Fishman, W. H. Studies on β-glucuronidase. I. A method of preparation and purification 367
Totter, John R., and Berg, Clarence P. The influence of optical isomerism on the utilization of tryptophane, histidine, and lysine for growth in the mouse 375
Schoenheimer, Rudolf, Rittenberg, D., and Keston, Albert S. Studies in protein metabolism. VIII. The activity of the α-amino group of histidine in animals 385
Riemenschneider, R. W., Wheeler, D. H., and Sando, Charles E. The probable identity of α- and β-linoleic acids 391
Cleary, Robert V., Maier, John, and Hitchings, George H. The metabolism of chlorinated naphthalenes 403
Wiese, A. C., Johnson, B. Connor, Elvehjem, C. A., Hart, E. B., and Halpin, J. G. A study of blood and bone phosphatase in chick perosis 411
Christensen, W. Blake, Johnson, Marvin J., and Peterson, W. H. Properties of the lactic acid-racemizing enzyme of *Clostridium butylicum* 421
Virtue, Robert W., and Doster-Virtue, Mildred E. Studies on the production of taurocholic acid in the dog. III. Cystine disulfoxide, cysteine sulfinic acid, and cysteic acid 431
Sumner, James B., and Dounce, Alexander L. Catalase. II 439
Holmes, Harry N., and Corbet, Ruth E. Catalytic effects of porous powders on pure vitamin A 449
Elliott, K. A. C., and Elliott, F. H. The influence of some intermediary metabolites and salts on the respiration of liver tissue suspensions 457
Velick, Sidney F., White, Julius, and Lewis, Howard B. The synthesis of dicholylcystine and cholylcysteic acid 477
Sendroy, Julius, Jr. Note on tests for purity of solid silver iodate prepared for chloride determination 483
Gordon, William G. The metabolism of N-methylated amino acids. I. The availability of α-N-monomethyllysine and α-N-dimethyllysine for growth 487
Prebluda, Harry J., and McCollum, E. V. A chemical reagent for thiamine 495
Melnick, Daniel, and Field, Henry, Jr. Chemical determination of vitamin B_1. I. Reaction between thiamine in pure aqueous solution and diazotized *p*-aminoacetophenone 505

MELNICK, DANIEL, and FIELD, HENRY, JR. Chemical determination of vitamin B_1. II. Method for estimation of the thiamine content of biological materials with the diazotized *p*-aminoacetophenone reagent 515

MELNICK, DANIEL, and FIELD, HENRY, JR. Chemical determination of vitamin B_1. III. Quantitative enzymic conversion of cocarboxylase (thiamine pyrophosphate) to the free vitamin 531

ÅGREN, GUNNAR, HAMMARSTEN, EINAR, and ROSDAHL, KARL GUSTAF. The disappearance of amino nitrogen from cell-free liver extracts. II 541

COOLIDGE, THOMAS B. A simple cataphoresis apparatus 551

IRVIN, J. LOGAN, and WILSON, D. WRIGHT. Studies on octopine. I. The synthesis and titration curve of octopine 555

IRVIN, J. LOGAN, and WILSON, D. WRIGHT. Studies on octopine. II. The nitrogenous extractives of squid and octopus muscle 565

IRVIN, J. LOGAN, and WILSON, D. WRIGHT. Studies on octopine. III. The precursor of octopine in autolyzing scallop muscle 575

No. 3, MARCH, 1939

WYMAN, JEFFRIES, JR. The heat of oxygenation of hemoglobin 581

CORCORAN, A. C., and PAGE, IRVINE H. Applications of diphenylamine in the determination of levulose in biological media. I. The determination of inulin. II. The determination of levulose in small amounts of blood 601

ALVING, ALF S., RUBIN, JACK, and MILLER, BENJAMIN F. A direct colorimetric method for the determination of inulin in blood and urine 609

BOURDILLON, JAQUES. An apparatus for the rapid and accurate determination of low osmotic pressures 617

FRUTON, JOSEPH S., and BERGMANN, MAX. The specificity of pepsin 627

BERGMANN, MAX, FRUTON, JOSEPH S., and POLLOK, HEINZ. The specificity of trypsin 643

ANDERSON, EDITH L., and MARRIAN, GUY FREDERIC. The identification of equol as 7-hydroxy-3-(4′-hydroxyphenyl) chroman, and the synthesis of racemic equol methyl ether 649

MANERY, JEANNE F., and HASTINGS, A. BAIRD. The distribution of electrolytes in mammalian tissues 657

ROSE, WILLIAM C., and EPPSTEIN, SAMUEL H. The dietary indispensability of valine 677

BLOCK, RICHARD J., and BOLLING, DIANA. The amino acid composition of keratins. The composition of gorgonin, spongin, turtle scutes, and other keratins 685

BERNHEIM, FREDERICK, and BERNHEIM, MARY L. C. The effect of titanium on the oxidation of sulfhydryl groups by various tissues 695

LOGAN, MILAN A., and KANE, LEWIS W. Solubility of bone salt. IV. Solubility of bone in biological fluids 705

LOGAN, MILAN A. The early effects of parathyroid hormone on the blood and urine 711
MACLACHLAN, P. L., and HODGE, HAROLD CARPENTER. The influence of cocaine feeding on the liver lipids of the white mouse 721
HUNT, MADISON, and DU VIGNEAUD, VINCENT. A further contribution on the relationship of the structure of *l*-carnosine to its depressor activity 727
TREVORROW, VIRGINIA. Studies on the nature of the iodine in blood 737
HARRIS, RUTH C. The adsorption of protein by filter paper in the estimation of albumin in blood serum 751
HELMER, O. M., and PAGE, IRVINE H. Purification and some properties of renin 757
BARRETT, H. M., and JOHNSTON, J. H. The fate of trichloroethylene in the organism 765
CORI, GERTY T., COLOWICK, SIDNEY P., and CORI, CARL F. The activity of the phosphorylating enzyme in muscle extract 771
INDEX TO VOLUME 127 783